

09/092. 222

11.6.01



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
06.09.2000 Bulletin 2000/36

(51) Int Cl.7: **C12N 15/29, C12N 15/82,
C07K 14/415, C12Q 1/68,
A01H 5/00**

(21) Application number: **00301439.6**

(22) Date of filing: **25.02.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

- **Brover, Vyacheslav**
Calabasas, CA 91302 (US)
- **Chen, Xianfeng**
Los Angeles, CA 90025 (US)
- **Subramanian, Gopalakrishnan**
Moorpark, CA 93021 (US)
- **Troukhan, Maxim E.**
South Pasadena, CA 91030 (US)
- **Zheng, Liansheng**
Creve Coeur, MO 63141 (US)
- **Dumas, J.**
, (US)

(30) Priority: **25.02.1999 US 121825 P**
27.07.1999 US 145918 P
28.07.1999 US 145951 P
02.08.1999 US 146388 P
02.08.1999 US 146389 P
02.08.1999 US 146386 P
03.08.1999 US 147038 P
04.08.1999 US 147302 P
04.08.1999 US 147204 P

More priorities on the following pages

(83) Declaration under Rule 28(4) EPC (expert solution)

(71) Applicant: **Ceres Incorporated**
Malibu, CA 90265 (US)

(72) Inventors:
• **Alexandrov, Nikolai**
Thousand Oaks, CA 91320 (US)

(74) Representative:
Bannerman, David Gardner et al
Withers & Rogers,
Goldings House,
2 Hays Lane
London SE1 2HW (GB)

Remarks:
**THE COMPLETE DOCUMENT INCLUDING
REFERENCE TABLES AND THE SEQUENCE
LISTING IS AVAILABLE ON CD-ROM FROM THE
EUROPEAN PATENT OFFICE, VIENNA
SUB-OFFICE.**

(54) **Sequence-determined DNA fragments and corresponding polypeptides encoded thereby**

(57) The present invention provides DNA molecules that constitute fragments of the genome of a plant, and polypeptides encoded thereby. The DNA molecules are useful for specifying a gene product in cells, either as a promoter or as a protein coding sequence or as an UTR or as a 3' termination sequence, and are also useful in controlling the behavior of a gene in the chromosome,

in controlling the expression of a gene or as tools for genetic mapping, recognizing or isolating identical or related DNA fragments, or identification of a particular individual organism, or for clustering of a group of organisms with a common trait.

⁹Arabidopsis DNA is used in the present experiment, but the procedure is a general one.

EP 1 033 405 A2

ID AAG43036 standard; Protein; 628 AA.
 XX
 AC AAG43036;
 XX
 DT 18-OCT-2000 (first entry)
 XX
 DE Arabidopsis thaliana protein fragment SEQ ID NO: 53743.
 XX
 KW Protein identification; signal transduction pathway; metabolic pathway;
 KW hybridisation assay; genetic mapping; gene expression control; promoter;
 KW termination sequence.
 XX
 OS Arabidopsis thaliana.
 XX
 PN EP1033405-A2.
 XX
 PD 06-SEP-2000.
 XX
 PF 25-FEB-2000; 2000EP-0301439.
 XX
 PR 25-FEB-1999; 99US-0121825.
 PR 05-MAR-1999; 99US-0123180.
 PR 09-MAR-1999; 99US-0123548.
 PR 23-MAR-1999; 99US-0125788.
 PR 25-MAR-1999; 99US-0126264.
 PR 29-MAR-1999; 99US-0126785.
 PR 01-APR-1999; 99US-0127462.
 PR 06-APR-1999; 99US-0128234.
 PR 08-APR-1999; 99US-0128714.
 PR 16-APR-1999; 99US-0129845.
 PR 19-APR-1999; 99US-0130077.
 PR 21-APR-1999; 99US-0130449.
 PR 23-APR-1999; 99US-0130510.
 PR 23-APR-1999; 99US-0130891.
 PR 28-APR-1999; 99US-0131449.
 PR 30-APR-1999; 99US-0132048.
 PR 30-APR-1999; 99US-0132407.
 PR 04-MAY-1999; 99US-0132484.
 PR 05-MAY-1999; 99US-0132485.
 PR 06-MAY-1999; 99US-0132486.
 PR 06-MAY-1999; 99US-0132487.
 PR 07-MAY-1999; 99US-0132863.
 PR 11-MAY-1999; 99US-0134256.
 PR 14-MAY-1999; 99US-0134218.
 PR 14-MAY-1999; 99US-0134219.
 PR 14-MAY-1999; 99US-0134221.
 PR 14-MAY-1999; 99US-0134370.
 PR 18-MAY-1999; 99US-0134768.
 PR 19-MAY-1999; 99US-0134941.
 PR 20-MAY-1999; 99US-0135124.
 PR 21-MAY-1999; 99US-0135353.
 PR 24-MAY-1999; 99US-0135629.
 PR 25-MAY-1999; 99US-0136021.
 PR 27-MAY-1999; 99US-0136392.
 PR 28-MAY-1999; 99US-0136782.
 PR 01-JUN-1999; 99US-0137222.
 PR 03-JUN-1999; 99US-0137528.
 PR 04-JUN-1999; 99US-0137502.
 PR 07-JUN-1999; 99US-0137724.
 PR 08-JUN-1999; 99US-0138094.
 PR 10-JUN-1999; 99US-0138540.
 PR 10-JUN-1999; 99US-0138847.
 PR 14-JUN-1999; 99US-0139119.
 PR 16-JUN-1999; 99US-0139452.

PR 16-JUN-1999; 99US-0139453.
PR 17-JUN-1999; 99US-0139492.
PR 18-JUN-1999; 99US-0139454.
PR 18-JUN-1999; 99US-0139455.
PR 18-JUN-1999; 99US-0139456.
PR 18-JUN-1999; 99US-0139457.
PR 18-JUN-1999; 99US-0139458.
PR 18-JUN-1999; 99US-0139459.
PR 18-JUN-1999; 99US-0139460.
PR 18-JUN-1999; 99US-0139461.
PR 18-JUN-1999; 99US-0139462.
PR 18-JUN-1999; 99US-0139463.
PR 18-JUN-1999; 99US-0139750.
PR 18-JUN-1999; 99US-0139763.
PR 21-JUN-1999; 99US-0139817.
PR 22-JUN-1999; 99US-0139899.
PR 23-JUN-1999; 99US-0140353.
PR 23-JUN-1999; 99US-0140354.
PR 24-JUN-1999; 99US-0140695.
PR 28-JUN-1999; 99US-0140823.
PR 29-JUN-1999; 99US-0140991.
PR 30-JUN-1999; 99US-0141287.
PR 01-JUL-1999; 99US-0141842.
PR 01-JUL-1999; 99US-0142154.
PR 02-JUL-1999; 99US-0142055.
PR 06-JUL-1999; 99US-0142390.
PR 08-JUL-1999; 99US-0142803.
PR 09-JUL-1999; 99US-0142920.
PR 12-JUL-1999; 99US-0142977.
PR 13-JUL-1999; 99US-0143542.
PR 14-JUL-1999; 99US-0143624.
PR 15-JUL-1999; 99US-0144005.
PR 16-JUL-1999; 99US-0144085.
PR 16-JUL-1999; 99US-0144086.
PR 19-JUL-1999; 99US-0144325.
PR 19-JUL-1999; 99US-0144331.
PR 19-JUL-1999; 99US-0144332.
PR 19-JUL-1999; 99US-0144333.
PR 19-JUL-1999; 99US-0144334.
PR 19-JUL-1999; 99US-0144335.
PR 20-JUL-1999; 99US-0144352.
PR 20-JUL-1999; 99US-0144632.
PR 20-JUL-1999; 99US-0144884.
PR 21-JUL-1999; 99US-0144814.
PR 21-JUL-1999; 99US-0145086.
PR 21-JUL-1999; 99US-0145088.
PR 22-JUL-1999; 99US-0145085.
PR 22-JUL-1999; 99US-0145087.
PR 22-JUL-1999; 99US-0145089.
PR 22-JUL-1999; 99US-0145192.
PR 23-JUL-1999; 99US-0145145.
PR 23-JUL-1999; 99US-0145218.
PR 23-JUL-1999; 99US-0145224.
PR 26-JUL-1999; 99US-0145276.
PR 27-JUL-1999; 99US-0145913.
PR 27-JUL-1999; 99US-0145918.
PR 27-JUL-1999; 99US-0145919.
PR 28-JUL-1999; 99US-0145951.
PR 02-AUG-1999; 99US-0146386.
PR 02-AUG-1999; 99US-0146388.
PR 02-AUG-1999; 99US-0146389.
PR 03-AUG-1999; 99US-0147038.
PR 04-AUG-1999; 99US-0147204.
PR 04-AUG-1999; 99US-0147302.

PR 05-AUG-1999; 99US-0147192.
PR 05-AUG-1999; 99US-0147260.
PR 06-AUG-1999; 99US-0147303.
PR 06-AUG-1999; 99US-0147416.
PR 09-AUG-1999; 99US-0147493.
PR 09-AUG-1999; 99US-0147935.
PR 10-AUG-1999; 99US-0148171.
PR 11-AUG-1999; 99US-0148319.
PR 12-AUG-1999; 99US-0148341.
PR 13-AUG-1999; 99US-0148565.
PR 13-AUG-1999; 99US-0148684.
PR 16-AUG-1999; 99US-0149368.
PR 17-AUG-1999; 99US-0149175.
PR 18-AUG-1999; 99US-0149426.
PR 20-AUG-1999; 99US-0149722.
PR 20-AUG-1999; 99US-0149723.
PR 20-AUG-1999; 99US-0149929.
PR 23-AUG-1999; 99US-0149902.
PR 23-AUG-1999; 99US-0149930.
PR 25-AUG-1999; 99US-0150566.
PR 26-AUG-1999; 99US-0150884.
PR 27-AUG-1999; 99US-0151065.
PR 27-AUG-1999; 99US-0151066.
PR 27-AUG-1999; 99US-0151080.
PR 30-AUG-1999; 99US-0151303.
PR 31-AUG-1999; 99US-0151438.
PR 01-SEP-1999; 99US-0151930.
PR 07-SEP-1999; 99US-0152363.
PR 10-SEP-1999; 99US-0153070.
PR 13-SEP-1999; 99US-0153758.
PR 15-SEP-1999; 99US-0154018.
PR 16-SEP-1999; 99US-0154039.
PR 20-SEP-1999; 99US-0154779.
PR 22-SEP-1999; 99US-0155139.
PR 23-SEP-1999; 99US-0155486.
PR 24-SEP-1999; 99US-0155659.
PR 28-SEP-1999; 99US-0156458.
PR 29-SEP-1999; 99US-0156596.
PR 04-OCT-1999; 99US-0157117.
PR 05-OCT-1999; 99US-0157753.
PR 06-OCT-1999; 99US-0157865.
PR 07-OCT-1999; 99US-0158029.
PR 08-OCT-1999; 99US-0158232.
PR 12-OCT-1999; 99US-0158369.
PR 13-OCT-1999; 99US-0159293.
PR 13-OCT-1999; 99US-0159294.
PR 13-OCT-1999; 99US-0159295.
PR 14-OCT-1999; 99US-0159329.
PR 14-OCT-1999; 99US-0159330.
PR 14-OCT-1999; 99US-0159331.
PR 14-OCT-1999; 99US-0159637.
PR 14-OCT-1999; 99US-0159638.
PR 18-OCT-1999; 99US-0159584.
PR 21-OCT-1999; 99US-0160741.
PR 21-OCT-1999; 99US-0160767.
PR 21-OCT-1999; 99US-0160768.
PR 21-OCT-1999; 99US-0160770.
PR 21-OCT-1999; 99US-0160814.
PR 21-OCT-1999; 99US-0160815.
PR 22-OCT-1999; 99US-0160980.
PR 22-OCT-1999; 99US-0160981.
PR 22-OCT-1999; 99US-0160989.
PR 25-OCT-1999; 99US-0161404.
PR 25-OCT-1999; 99US-0161405.

PR 25-OCT-1999; 99US-0161406.
PR 26-OCT-1999; 99US-0161359.
PR 26-OCT-1999; 99US-0161360.
PR 26-OCT-1999; 99US-0161361.
PR 28-OCT-1999; 99US-0161920.
PR 28-OCT-1999; 99US-0161992.
PR 28-OCT-1999; 99US-0161993.
PR 29-OCT-1999; 99US-0162142.
PR 29-OCT-1999; 99US-0162143.
PR 29-OCT-1999; 99US-0162228.
PR 01-NOV-1999; 99US-0162891.
PR 01-NOV-1999; 99US-0162894.
PR 01-NOV-1999; 99US-0162895.
PR 02-NOV-1999; 99US-0163091.
PR 02-NOV-1999; 99US-0163092.
PR 02-NOV-1999; 99US-0163093.
PR 03-NOV-1999; 99US-0163248.
PR 03-NOV-1999; 99US-0163249.
PR 03-NOV-1999; 99US-0163281.
PR 04-NOV-1999; 99US-0163379.
PR 04-NOV-1999; 99US-0163380.
PR 04-NOV-1999; 99US-0163381.
PR 08-NOV-1999; 99US-0164146.
PR 08-NOV-1999; 99US-0164150.
PR 08-NOV-1999; 99US-0164151.
PR 09-NOV-1999; 99US-0164259.
PR 09-NOV-1999; 99US-0164260.
PR 10-NOV-1999; 99US-0164317.
PR 10-NOV-1999; 99US-0164318.
PR 10-NOV-1999; 99US-0164319.
PR 10-NOV-1999; 99US-0164321.
PR 10-NOV-1999; 99US-0164544.
PR 10-NOV-1999; 99US-0164545.
PR 10-NOV-1999; 99US-0164548.
PR 12-NOV-1999; 99US-0164870.
PR 12-NOV-1999; 99US-0164871.
PR 12-NOV-1999; 99US-0164959.
PR 12-NOV-1999; 99US-0164960.
PR 12-NOV-1999; 99US-0164961.
PR 12-NOV-1999; 99US-0164962.
PR 15-NOV-1999; 99US-0164926.
PR 15-NOV-1999; 99US-0164927.
PR 15-NOV-1999; 99US-0164929.
PR 16-NOV-1999; 99US-0165661.
PR 16-NOV-1999; 99US-0165669.
PR 16-NOV-1999; 99US-0165671.
PR 17-NOV-1999; 99US-0165911.
PR 17-NOV-1999; 99US-0165918.
PR 17-NOV-1999; 99US-0165919.
PR 18-NOV-1999; 99US-0166157.
PR 18-NOV-1999; 99US-0166158.
PR 18-NOV-1999; 99US-0166173.
PR 19-NOV-1999; 99US-0166411.
PR 19-NOV-1999; 99US-0166412.
PR 19-NOV-1999; 99US-0166419.
PR 22-NOV-1999; 99US-0166733.
PR 22-NOV-1999; 99US-0166750.
PR 23-NOV-1999; 99US-0167362.
PR 24-NOV-1999; 99US-0167233.
PR 24-NOV-1999; 99US-0167234.
PR 24-NOV-1999; 99US-0167235.
PR 24-NOV-1999; 99US-0167382.
PR 30-NOV-1999; 99US-0167902.
PR 30-NOV-1999; 99US-0167904.

PR 30-NOV-1999; 99US-0167908.
 PR 01-DEC-1999; 99US-0168231.
 PR 01-DEC-1999; 99US-0168232.
 PR 01-DEC-1999; 99US-0168233.
 PR 02-DEC-1999; 99US-0168546.
 PR 02-DEC-1999; 99US-0168548.
 PR 02-DEC-1999; 99US-0168549.
 PR 03-DEC-1999; 99US-0168673.
 PR 03-DEC-1999; 99US-0168674.
 PR 03-DEC-1999; 99US-0168675.
 PR 07-DEC-1999; 99US-0169278.
 PR 07-DEC-1999; 99US-0169298.
 PR 07-DEC-1999; 99US-0169302.
 PR 08-DEC-1999; 99US-0169691.
 PR 08-DEC-1999; 99US-0169692.
 PR 16-DEC-1999; 99US-0171098.
 PR 16-DEC-1999; 99US-0171107.
 PR 16-DEC-1999; 99US-0171114.
 PR 19-JAN-2000; 2000US-0176866.
 PR 19-JAN-2000; 2000US-0176867.
 PR 19-JAN-2000; 2000US-0176910.
 PR 26-JAN-2000; 2000US-0178166.
 PR 27-JAN-2000; 2000US-0177666.
 PR 27-JAN-2000; 2000US-0178544.
 PR 27-JAN-2000; 2000US-0178545.
 PR 27-JAN-2000; 2000US-0178546.
 PR 27-JAN-2000; 2000US-0178547.
 PR 28-JAN-2000; 2000US-0178754.
 PR 28-JAN-2000; 2000US-0178755.
 PR 01-FEB-2000; 2000US-0179388.
 PR 01-FEB-2000; 2000US-0179395.
 PR 03-FEB-2000; 2000US-0180039.
 PR 03-FEB-2000; 2000US-0180139.
 PR 04-FEB-2000; 2000US-0180206.
 PR 04-FEB-2000; 2000US-0180207.
 PR 07-FEB-2000; 2000US-0180695.
 PR 07-FEB-2000; 2000US-0180696.
 PR 09-FEB-2000; 2000US-0181214.
 PR 09-FEB-2000; 2000US-0181228.
 PR 10-FEB-2000; 2000US-0181476.
 PR 10-FEB-2000; 2000US-0181551.
 PR 15-FEB-2000; 2000US-0182477.
 PR 15-FEB-2000; 2000US-0182478.
 PR 15-FEB-2000; 2000US-0182512.
 PR 15-FEB-2000; 2000US-0182516.
 PR 17-FEB-2000; 2000US-0183165.
 PR 17-FEB-2000; 2000US-0183166.

XX

PA (CERE-) CERES INC.

XX

PI Alexandrov N, Brover V, Chen X, Subramanian G, Troukhan ME;
 PI Zheng L, Dumas J;

XX

DR WPI; 2000-507395/46.

DR N-PSDB; AAC47417.

XX

PT New sequence determined DNA fragments (SDFs) from different plant
 PT species, e.g. corn, rice or Arabidopsis thaliana, useful as promoters,
 PT protein coding sequences, untranslated regions, or as 3' termination
 PT sequences -

XX

PS Claim 19; SEQ ID 53743; 344pp + CD-ROM; English.

XX

CC The present sequence is a putative protein fragment from

CC Arabidopsis thaliana. Its coding sequence was isolated by carrying out
CC RT-PCR on all of the mRNA obtained from the plant, and creating a cDNA
CC library which could then be sequenced, allowing the putative protein
CC sequence(s) to be obtained. This sequence may be useful for protein
CC identification and for aiding in the elucidation of signal transduction
CC and metabolic pathways. Its coding sequence has a use in the control of
CC gene expression as a promoter, coding sequence, 3'UTR or termination
CC sequence, for controlling the behaviour of a gene within the chromosome,
CC as a tool for use in genetic mapping, including a use in hybridisation
CC assays, for recognition or isolation of similar DNA fragments, or for
CC the identification of a particular organism.

XX

SQ Sequence 628 AA;

SQ 67 A; 35 R; 18 N; 35 D; 0 B; 11 C; 21 Q; 52 E; 0 Z; 40 G; 10 H;

SQ 29 I; 62 L; 39 K; 16 M; 19 F; 42 P; 51 S; 29 T; 1 W; 18 Y; 33 V;

SQ 0 Others;

nqirhnsllsl shfpqrtdtfm pampglvsvk tpsdtpplrv avpdtqplsn pprtpmkktp
sstpsrskps pnrstgkkds ptvssstaav idvddpsldn pdlgpfllkl ardaiasgeg
pnkaldyair atksfercca avappipggs dggpvldlam slhvlaaiyc slgrfdeavp
pleraiqvpd ptrgpdhsla afsgmqldg tismgqidr siacyeeglk iqiqtlgtdt
prvgetcryl aeayvqamqf nkaeelckkt leihrahsep asleaaadrr lmaiiceakg
dyenalehlv lasmamasg gesevasidv signiymslc rfdeavfsyq kaltvfkask
gethptvasv fvrlaelyhr tgklresksy cenalriynk pvpgttveei agglteisai
yesvdepeea lkllqksmk1 ledkpgqgsa iaglearmgv myytvgryed arnafesavt
klraageksa ffgvvlnqmg lacvqlfkid eagelfeear gileqergpc dqdtlgvysn
laatydamgr iedaieileq vlklreeklg tanpdfedek krlaellkea grsrnykaks
lqnlidpnar pppkessakk wpslgfkf

//

ID AAG43037 standard; Protein; 609 AA.
 XX
 AC AAG43037;
 XX
 DT 18-OCT-2000 (first entry)
 XX
 DE Arabidopsis thaliana protein fragment SEQ ID NO: 53744.
 XX
 KW Protein identification; signal transduction pathway; metabolic pathway;
 KW hybridisation assay; genetic mapping; gene expression control; promoter;
 KW termination sequence.
 XX
 OS Arabidopsis thaliana.
 XX
 PN EP1033405-A2.
 XX
 PD 06-SEP-2000.
 XX
 PF 25-FEB-2000; 2000EP-0301439.
 XX
 PR 25-FEB-1999; 99US-0121825.
 PR 05-MAR-1999; 99US-0123180.
 PR 09-MAR-1999; 99US-0123548.
 PR 23-MAR-1999; 99US-0125788.
 PR 25-MAR-1999; 99US-0126264.
 PR 29-MAR-1999; 99US-0126785.
 PR 01-APR-1999; 99US-0127462.
 PR 06-APR-1999; 99US-0128234.
 PR 08-APR-1999; 99US-0128714.
 PR 16-APR-1999; 99US-0129845.
 PR 19-APR-1999; 99US-0130077.
 PR 21-APR-1999; 99US-0130449.
 PR 23-APR-1999; 99US-0130510.
 PR 23-APR-1999; 99US-0130891.
 PR 28-APR-1999; 99US-0131449.
 PR 30-APR-1999; 99US-0132048.
 PR 30-APR-1999; 99US-0132407.
 PR 04-MAY-1999; 99US-0132484.
 PR 05-MAY-1999; 99US-0132485.
 PR 06-MAY-1999; 99US-0132486.
 PR 06-MAY-1999; 99US-0132487.
 PR 07-MAY-1999; 99US-0132863.
 PR 11-MAY-1999; 99US-0134256.
 PR 14-MAY-1999; 99US-0134218.
 PR 14-MAY-1999; 99US-0134219.
 PR 14-MAY-1999; 99US-0134221.
 PR 14-MAY-1999; 99US-0134370.
 PR 18-MAY-1999; 99US-0134768.
 PR 19-MAY-1999; 99US-0134941.
 PR 20-MAY-1999; 99US-0135124.
 PR 21-MAY-1999; 99US-0135353.
 PR 24-MAY-1999; 99US-0135629.
 PR 25-MAY-1999; 99US-0136021.
 PR 27-MAY-1999; 99US-0136392.
 PR 28-MAY-1999; 99US-0136782.
 PR 01-JUN-1999; 99US-0137222.
 PR 03-JUN-1999; 99US-0137528.
 PR 04-JUN-1999; 99US-0137502.
 PR 07-JUN-1999; 99US-0137724.
 PR 08-JUN-1999; 99US-0138094.
 PR 10-JUN-1999; 99US-0138540.
 PR 10-JUN-1999; 99US-0138847.
 PR 14-JUN-1999; 99US-0139119.
 PR 16-JUN-1999; 99US-0139452.

PR 16-JUN-1999; 99US-0139453.
PR 17-JUN-1999; 99US-0139492.
PR 18-JUN-1999; 99US-0139454.
PR 18-JUN-1999; 99US-0139455.
PR 18-JUN-1999; 99US-0139456.
PR 18-JUN-1999; 99US-0139457.
PR 18-JUN-1999; 99US-0139458.
PR 18-JUN-1999; 99US-0139459.
PR 18-JUN-1999; 99US-0139460.
PR 18-JUN-1999; 99US-0139461.
PR 18-JUN-1999; 99US-0139462.
PR 18-JUN-1999; 99US-0139463.
PR 18-JUN-1999; 99US-0139750.
PR 18-JUN-1999; 99US-0139763.
PR 21-JUN-1999; 99US-0139817.
PR 22-JUN-1999; 99US-0139899.
PR 23-JUN-1999; 99US-0140353.
PR 23-JUN-1999; 99US-0140354.
PR 24-JUN-1999; 99US-0140695.
PR 28-JUN-1999; 99US-0140823.
PR 29-JUN-1999; 99US-0140991.
PR 30-JUN-1999; 99US-0141287.
PR 01-JUL-1999; 99US-0141842.
PR 01-JUL-1999; 99US-0142154.
PR 02-JUL-1999; 99US-0142055.
PR 06-JUL-1999; 99US-0142390.
PR 08-JUL-1999; 99US-0142803.
PR 09-JUL-1999; 99US-0142920.
PR 12-JUL-1999; 99US-0142977.
PR 13-JUL-1999; 99US-0143542.
PR 14-JUL-1999; 99US-0143624.
PR 15-JUL-1999; 99US-0144005.
PR 16-JUL-1999; 99US-0144085.
PR 16-JUL-1999; 99US-0144086.
PR 19-JUL-1999; 99US-0144325.
PR 19-JUL-1999; 99US-0144331.
PR 19-JUL-1999; 99US-0144332.
PR 19-JUL-1999; 99US-0144333.
PR 19-JUL-1999; 99US-0144334.
PR 19-JUL-1999; 99US-0144335.
PR 20-JUL-1999; 99US-0144352.
PR 20-JUL-1999; 99US-0144632.
PR 20-JUL-1999; 99US-0144884.
PR 21-JUL-1999; 99US-0144814.
PR 21-JUL-1999; 99US-0145086.
PR 21-JUL-1999; 99US-0145088.
PR 22-JUL-1999; 99US-0145085.
PR 22-JUL-1999; 99US-0145087.
PR 22-JUL-1999; 99US-0145089.
PR 22-JUL-1999; 99US-0145192.
PR 23-JUL-1999; 99US-0145145.
PR 23-JUL-1999; 99US-0145218.
PR 23-JUL-1999; 99US-0145224.
PR 26-JUL-1999; 99US-0145276.
PR 27-JUL-1999; 99US-0145913.
PR 27-JUL-1999; 99US-0145918.
PR 27-JUL-1999; 99US-0145919.
PR 28-JUL-1999; 99US-0145951.
PR 02-AUG-1999; 99US-0146386.
PR 02-AUG-1999; 99US-0146388.
PR 02-AUG-1999; 99US-0146389.
PR 03-AUG-1999; 99US-0147038.
PR 04-AUG-1999; 99US-0147204.
PR 04-AUG-1999; 99US-0147302.

PR 05-AUG-1999; 99US-0147192.
PR 05-AUG-1999; 99US-0147260.
PR 06-AUG-1999; 99US-0147303.
PR 06-AUG-1999; 99US-0147416.
PR 09-AUG-1999; 99US-0147493.
PR 09-AUG-1999; 99US-0147935.
PR 10-AUG-1999; 99US-0148171.
PR 11-AUG-1999; 99US-0148319.
PR 12-AUG-1999; 99US-0148341.
PR 13-AUG-1999; 99US-0148565.
PR 13-AUG-1999; 99US-0148684.
PR 16-AUG-1999; 99US-0149368.
PR 17-AUG-1999; 99US-0149175.
PR 18-AUG-1999; 99US-0149426.
PR 20-AUG-1999; 99US-0149722.
PR 20-AUG-1999; 99US-0149723.
PR 20-AUG-1999; 99US-0149929.
PR 23-AUG-1999; 99US-0149902.
PR 23-AUG-1999; 99US-0149930.
PR 25-AUG-1999; 99US-0150566.
PR 26-AUG-1999; 99US-0150884.
PR 27-AUG-1999; 99US-0151065.
PR 27-AUG-1999; 99US-0151066.
PR 27-AUG-1999; 99US-0151080.
PR 30-AUG-1999; 99US-0151303.
PR 31-AUG-1999; 99US-0151438.
PR 01-SEP-1999; 99US-0151930.
PR 07-SEP-1999; 99US-0152363.
PR 10-SEP-1999; 99US-0153070.
PR 13-SEP-1999; 99US-0153758.
PR 15-SEP-1999; 99US-0154018.
PR 16-SEP-1999; 99US-0154039.
PR 20-SEP-1999; 99US-0154779.
PR 22-SEP-1999; 99US-0155139.
PR 23-SEP-1999; 99US-0155486.
PR 24-SEP-1999; 99US-0155659.
PR 28-SEP-1999; 99US-0156458.
PR 29-SEP-1999; 99US-0156596.
PR 04-OCT-1999; 99US-0157117.
PR 05-OCT-1999; 99US-0157753.
PR 06-OCT-1999; 99US-0157865.
PR 07-OCT-1999; 99US-0158029.
PR 08-OCT-1999; 99US-0158232.
PR 12-OCT-1999; 99US-0158369.
PR 13-OCT-1999; 99US-0159293.
PR 13-OCT-1999; 99US-0159294.
PR 13-OCT-1999; 99US-0159295.
PR 14-OCT-1999; 99US-0159329.
PR 14-OCT-1999; 99US-0159330.
PR 14-OCT-1999; 99US-0159331.
PR 14-OCT-1999; 99US-0159637.
PR 14-OCT-1999; 99US-0159638.
PR 18-OCT-1999; 99US-0159584.
PR 21-OCT-1999; 99US-0160741.
PR 21-OCT-1999; 99US-0160767.
PR 21-OCT-1999; 99US-0160768.
PR 21-OCT-1999; 99US-0160770.
PR 21-OCT-1999; 99US-0160814.
PR 21-OCT-1999; 99US-0160815.
PR 22-OCT-1999; 99US-0160980.
PR 22-OCT-1999; 99US-0160981.
PR 22-OCT-1999; 99US-0160989.
PR 25-OCT-1999; 99US-0161404.
PR 25-OCT-1999; 99US-0161405.

PR	25-OCT-1999;	99US-0161406.
PR	26-OCT-1999;	99US-0161359.
PR	26-OCT-1999;	99US-0161360.
PR	26-OCT-1999;	99US-0161361.
PR	28-OCT-1999;	99US-0161920.
PR	28-OCT-1999;	99US-0161992.
PR	28-OCT-1999;	99US-0161993.
PR	29-OCT-1999;	99US-0162142.
PR	29-OCT-1999;	99US-0162143.
PR	29-OCT-1999;	99US-0162228.
PR	01-NOV-1999;	99US-0162891.
PR	01-NOV-1999;	99US-0162894.
PR	01-NOV-1999;	99US-0162895.
PR	02-NOV-1999;	99US-0163091.
PR	02-NOV-1999;	99US-0163092.
PR	02-NOV-1999;	99US-0163093.
PR	03-NOV-1999;	99US-0163248.
PR	03-NOV-1999;	99US-0163249.
PR	03-NOV-1999;	99US-0163281.
PR	04-NOV-1999;	99US-0163379.
PR	04-NOV-1999;	99US-0163380.
PR	04-NOV-1999;	99US-0163381.
PR	08-NOV-1999;	99US-0164146.
PR	08-NOV-1999;	99US-0164150.
PR	08-NOV-1999;	99US-0164151.
PR	09-NOV-1999;	99US-0164259.
PR	09-NOV-1999;	99US-0164260.
PR	10-NOV-1999;	99US-0164317.
PR	10-NOV-1999;	99US-0164318.
PR	10-NOV-1999;	99US-0164319.
PR	10-NOV-1999;	99US-0164321.
PR	10-NOV-1999;	99US-0164544.
PR	10-NOV-1999;	99US-0164545.
PR	10-NOV-1999;	99US-0164548.
PR	12-NOV-1999;	99US-0164870.
PR	12-NOV-1999;	99US-0164871.
PR	12-NOV-1999;	99US-0164959.
PR	12-NOV-1999;	99US-0164960.
PR	12-NOV-1999;	99US-0164961.
PR	12-NOV-1999;	99US-0164962.
PR	15-NOV-1999;	99US-0164926.
PR	15-NOV-1999;	99US-0164927.
PR	15-NOV-1999;	99US-0164929.
PR	16-NOV-1999;	99US-0165661.
PR	16-NOV-1999;	99US-0165669.
PR	16-NOV-1999;	99US-0165671.
PR	17-NOV-1999;	99US-0165911.
PR	17-NOV-1999;	99US-0165918.
PR	17-NOV-1999;	99US-0165919.
PR	18-NOV-1999;	99US-0166157.
PR	18-NOV-1999;	99US-0166158.
PR	18-NOV-1999;	99US-0166173.
PR	19-NOV-1999;	99US-0166411.
PR	19-NOV-1999;	99US-0166412.
PR	19-NOV-1999;	99US-0166419.
PR	22-NOV-1999;	99US-0166733.
PR	22-NOV-1999;	99US-0166750.
PR	23-NOV-1999;	99US-0167362.
PR	24-NOV-1999;	99US-0167233.
PR	24-NOV-1999;	99US-0167234.
PR	24-NOV-1999;	99US-0167235.
PR	24-NOV-1999;	99US-0167382.
PR	30-NOV-1999;	99US-0167902.
PR	30-NOV-1999;	99US-0167904.

PR 30-NOV-1999; 99US-0167908.
 PR 01-DEC-1999; 99US-0168231.
 PR 01-DEC-1999; 99US-0168232.
 PR 01-DEC-1999; 99US-0168233.
 PR 02-DEC-1999; 99US-0168546.
 PR 02-DEC-1999; 99US-0168548.
 PR 02-DEC-1999; 99US-0168549.
 PR 03-DEC-1999; 99US-0168673.
 PR 03-DEC-1999; 99US-0168674.
 PR 03-DEC-1999; 99US-0168675.
 PR 07-DEC-1999; 99US-0169278.
 PR 07-DEC-1999; 99US-0169298.
 PR 07-DEC-1999; 99US-0169302.
 PR 08-DEC-1999; 99US-0169691.
 PR 08-DEC-1999; 99US-0169692.
 PR 16-DEC-1999; 99US-0171098.
 PR 16-DEC-1999; 99US-0171107.
 PR 16-DEC-1999; 99US-0171114.
 PR 19-JAN-2000; 2000US-0176866.
 PR 19-JAN-2000; 2000US-0176867.
 PR 19-JAN-2000; 2000US-0176910.
 PR 26-JAN-2000; 2000US-0178166.
 PR 27-JAN-2000; 2000US-0177666.
 PR 27-JAN-2000; 2000US-0178544.
 PR 27-JAN-2000; 2000US-0178545.
 PR 27-JAN-2000; 2000US-0178546.
 PR 27-JAN-2000; 2000US-0178547.
 PR 28-JAN-2000; 2000US-0178754.
 PR 28-JAN-2000; 2000US-0178755.
 PR 01-FEB-2000; 2000US-0179388.
 PR 01-FEB-2000; 2000US-0179395.
 PR 03-FEB-2000; 2000US-0180039.
 PR 03-FEB-2000; 2000US-0180139.
 PR 04-FEB-2000; 2000US-0180206.
 PR 04-FEB-2000; 2000US-0180207.
 PR 07-FEB-2000; 2000US-0180695.
 PR 07-FEB-2000; 2000US-0180696.
 PR 09-FEB-2000; 2000US-0181214.
 PR 09-FEB-2000; 2000US-0181228.
 PR 10-FEB-2000; 2000US-0181476.
 PR 10-FEB-2000; 2000US-0181551.
 PR 15-FEB-2000; 2000US-0182477.
 PR 15-FEB-2000; 2000US-0182478.
 PR 15-FEB-2000; 2000US-0182512.
 PR 15-FEB-2000; 2000US-0182516.
 PR 17-FEB-2000; 2000US-0183165.
 PR 17-FEB-2000; 2000US-0183166.
 XX
 PA (CERE-) CERES INC.
 XX
 PI Alexandrov N, Brover V, Chen X, Subramanian G, Troukhan ME;
 PI Zheng L, Dumas J;
 XX
 DR WPI; 2000-507395/46.
 DR N-PSDB; AAC47417.
 XX
 PT New sequence determined DNA fragments (SDFs) from different plant
 PT species, e.g. corn, rice or Arabidopsis thaliana, useful as promoters,
 PT protein coding sequences, untranslated regions, or as 3' termination
 PT sequences -
 XX
 PS Claim 19; SEQ ID 53744; 344pp + CD-ROM; English.
 XX
 CC The present sequence is a putative protein fragment from

ID AAG43038 standard; Protein; 606 AA.
XX
AC AAG43038;
XX
DT 18-OCT-2000 (first entry)
XX
DE Arabidopsis thaliana protein fragment SEQ ID NO: 53745.
XX
KW Protein identification; signal transduction pathway; metabolic pathway;
KW hybridisation assay; genetic mapping; gene expression control; promoter;
KW termination sequence.
XX
OS Arabidopsis thaliana.
XX
PN EP1033405-A2.
XX
PD 06-SEP-2000.
XX
PF 25-FEB-2000; 2000EP-0301439.
XX
PR 25-FEB-1999; 99US-0121825.
PR 05-MAR-1999; 99US-0123180.
PR 09-MAR-1999; 99US-0123548.
PR 23-MAR-1999; 99US-0125788.
PR 25-MAR-1999; 99US-0126264.
PR 29-MAR-1999; 99US-0126785.
PR 01-APR-1999; 99US-0127462.
PR 06-APR-1999; 99US-0128234.
PR 08-APR-1999; 99US-0128714.
PR 16-APR-1999; 99US-0129845.
PR 19-APR-1999; 99US-0130077.
PR 21-APR-1999; 99US-0130449.
PR 23-APR-1999; 99US-0130510.
PR 23-APR-1999; 99US-0130891.
PR 28-APR-1999; 99US-0131449.
PR 30-APR-1999; 99US-0132048.
PR 30-APR-1999; 99US-0132407.
PR 04-MAY-1999; 99US-0132484.
PR 05-MAY-1999; 99US-0132485.
PR 06-MAY-1999; 99US-0132486.
PR 06-MAY-1999; 99US-0132487.
PR 07-MAY-1999; 99US-0132863.
PR 11-MAY-1999; 99US-0134256.
PR 14-MAY-1999; 99US-0134218.
PR 14-MAY-1999; 99US-0134219.
PR 14-MAY-1999; 99US-0134221.
PR 14-MAY-1999; 99US-0134370.
PR 18-MAY-1999; 99US-0134768.
PR 19-MAY-1999; 99US-0134941.
PR 20-MAY-1999; 99US-0135124.
PR 21-MAY-1999; 99US-0135353.
PR 24-MAY-1999; 99US-0135629.
PR 25-MAY-1999; 99US-0136021.
PR 27-MAY-1999; 99US-0136392.
PR 28-MAY-1999; 99US-0136782.
PR 01-JUN-1999; 99US-0137222.
PR 03-JUN-1999; 99US-0137528.
PR 04-JUN-1999; 99US-0137502.
PR 07-JUN-1999; 99US-0137724.
PR 08-JUN-1999; 99US-0138094.
PR 10-JUN-1999; 99US-0138540.
PR 10-JUN-1999; 99US-0138847.
PR 14-JUN-1999; 99US-0139119.
PR 16-JUN-1999; 99US-0139452.

PR	16-JUN-1999;	99US-0139453.
PR	17-JUN-1999;	99US-0139492.
PR	18-JUN-1999;	99US-0139454.
PR	18-JUN-1999;	99US-0139455.
PR	18-JUN-1999;	99US-0139456.
PR	18-JUN-1999;	99US-0139457.
PR	18-JUN-1999;	99US-0139458.
PR	18-JUN-1999;	99US-0139459.
PR	18-JUN-1999;	99US-0139460.
PR	18-JUN-1999;	99US-0139461.
PR	18-JUN-1999;	99US-0139462.
PR	18-JUN-1999;	99US-0139463.
PR	18-JUN-1999;	99US-0139750.
PR	18-JUN-1999;	99US-0139763.
PR	21-JUN-1999;	99US-0139817.
PR	22-JUN-1999;	99US-0139899.
PR	23-JUN-1999;	99US-0140353.
PR	23-JUN-1999;	99US-0140354.
PR	24-JUN-1999;	99US-0140695.
PR	28-JUN-1999;	99US-0140823.
PR	29-JUN-1999;	99US-0140991.
PR	30-JUN-1999;	99US-0141287.
PR	01-JUL-1999;	99US-0141842.
PR	01-JUL-1999;	99US-0142154.
PR	02-JUL-1999;	99US-0142055.
PR	06-JUL-1999;	99US-0142390.
PR	08-JUL-1999;	99US-0142803.
PR	09-JUL-1999;	99US-0142920.
PR	12-JUL-1999;	99US-0142977.
PR	13-JUL-1999;	99US-0143542.
PR	14-JUL-1999;	99US-0143624.
PR	15-JUL-1999;	99US-0144005.
PR	16-JUL-1999;	99US-0144085.
PR	16-JUL-1999;	99US-0144086.
PR	19-JUL-1999;	99US-0144325.
PR	19-JUL-1999;	99US-0144331.
PR	19-JUL-1999;	99US-0144332.
PR	19-JUL-1999;	99US-0144333.
PR	19-JUL-1999;	99US-0144334.
PR	19-JUL-1999;	99US-0144335.
PR	20-JUL-1999;	99US-0144352.
PR	20-JUL-1999;	99US-0144632.
PR	20-JUL-1999;	99US-0144884.
PR	21-JUL-1999;	99US-0144814.
PR	21-JUL-1999;	99US-0145086.
PR	21-JUL-1999;	99US-0145088.
PR	22-JUL-1999;	99US-0145085.
PR	22-JUL-1999;	99US-0145087.
PR	22-JUL-1999;	99US-0145089.
PR	22-JUL-1999;	99US-0145192.
PR	23-JUL-1999;	99US-0145145.
PR	23-JUL-1999;	99US-0145218.
PR	23-JUL-1999;	99US-0145224.
PR	26-JUL-1999;	99US-0145276.
PR	27-JUL-1999;	99US-0145913.
PR	27-JUL-1999;	99US-0145918.
PR	27-JUL-1999;	99US-0145919.
PR	28-JUL-1999;	99US-0145951.
PR	02-AUG-1999;	99US-0146386.
PR	02-AUG-1999;	99US-0146388.
PR	02-AUG-1999;	99US-0146389.
PR	03-AUG-1999;	99US-0147038.
PR	04-AUG-1999;	99US-0147204.
PR	04-AUG-1999;	99US-0147302.

PR 05-AUG-1999; 99US-0147192.
PR 05-AUG-1999; 99US-0147260.
PR 06-AUG-1999; 99US-0147303.
PR 06-AUG-1999; 99US-0147416.
PR 09-AUG-1999; 99US-0147493.
PR 09-AUG-1999; 99US-0147935.
PR 10-AUG-1999; 99US-0148171.
PR 11-AUG-1999; 99US-0148319.
PR 12-AUG-1999; 99US-0148341.
PR 13-AUG-1999; 99US-0148565.
PR 13-AUG-1999; 99US-0148684.
PR 16-AUG-1999; 99US-0149368.
PR 17-AUG-1999; 99US-0149175.
PR 18-AUG-1999; 99US-0149426.
PR 20-AUG-1999; 99US-0149722.
PR 20-AUG-1999; 99US-0149723.
PR 20-AUG-1999; 99US-0149929.
PR 23-AUG-1999; 99US-0149902.
PR 23-AUG-1999; 99US-0149930.
PR 25-AUG-1999; 99US-0150566.
PR 26-AUG-1999; 99US-0150884.
PR 27-AUG-1999; 99US-0151065.
PR 27-AUG-1999; 99US-0151066.
PR 27-AUG-1999; 99US-0151080.
PR 30-AUG-1999; 99US-0151303.
PR 31-AUG-1999; 99US-0151438.
PR 01-SEP-1999; 99US-0151930.
PR 07-SEP-1999; 99US-0152363.
PR 10-SEP-1999; 99US-0153070.
PR 13-SEP-1999; 99US-0153758.
PR 15-SEP-1999; 99US-0154018.
PR 16-SEP-1999; 99US-0154039.
PR 20-SEP-1999; 99US-0154779.
PR 22-SEP-1999; 99US-0155139.
PR 23-SEP-1999; 99US-0155486.
PR 24-SEP-1999; 99US-0155659.
PR 28-SEP-1999; 99US-0156458.
PR 29-SEP-1999; 99US-0156596.
PR 04-OCT-1999; 99US-0157117.
PR 05-OCT-1999; 99US-0157753.
PR 06-OCT-1999; 99US-0157865.
PR 07-OCT-1999; 99US-0158029.
PR 08-OCT-1999; 99US-0158232.
PR 12-OCT-1999; 99US-0158369.
PR 13-OCT-1999; 99US-0159293.
PR 13-OCT-1999; 99US-0159294.
PR 13-OCT-1999; 99US-0159295.
PR 14-OCT-1999; 99US-0159329.
PR 14-OCT-1999; 99US-0159330.
PR 14-OCT-1999; 99US-0159331.
PR 14-OCT-1999; 99US-0159637.
PR 14-OCT-1999; 99US-0159638.
PR 18-OCT-1999; 99US-0159584.
PR 21-OCT-1999; 99US-0160741.
PR 21-OCT-1999; 99US-0160767.
PR 21-OCT-1999; 99US-0160768.
PR 21-OCT-1999; 99US-0160770.
PR 21-OCT-1999; 99US-0160814.
PR 21-OCT-1999; 99US-0160815.
PR 22-OCT-1999; 99US-0160980.
PR 22-OCT-1999; 99US-0160981.
PR 22-OCT-1999; 99US-0160989.
PR 25-OCT-1999; 99US-0161404.
PR 25-OCT-1999; 99US-0161405.

PR	25-OCT-1999;	99US-0161406.
PR	26-OCT-1999;	99US-0161359.
PR	26-OCT-1999;	99US-0161360.
PR	26-OCT-1999;	99US-0161361.
PR	28-OCT-1999;	99US-0161920.
PR	28-OCT-1999;	99US-0161992.
PR	28-OCT-1999;	99US-0161993.
PR	29-OCT-1999;	99US-0162142.
PR	29-OCT-1999;	99US-0162143.
PR	29-OCT-1999;	99US-0162228.
PR	01-NOV-1999;	99US-0162891.
PR	01-NOV-1999;	99US-0162894.
PR	01-NOV-1999;	99US-0162895.
PR	02-NOV-1999;	99US-0163091.
PR	02-NOV-1999;	99US-0163092.
PR	02-NOV-1999;	99US-0163093.
PR	03-NOV-1999;	99US-0163248.
PR	03-NOV-1999;	99US-0163249.
PR	03-NOV-1999;	99US-0163281.
PR	04-NOV-1999;	99US-0163379.
PR	04-NOV-1999;	99US-0163380.
PR	04-NOV-1999;	99US-0163381.
PR	08-NOV-1999;	99US-0164146.
PR	08-NOV-1999;	99US-0164150.
PR	08-NOV-1999;	99US-0164151.
PR	09-NOV-1999;	99US-0164259.
PR	09-NOV-1999;	99US-0164260.
PR	10-NOV-1999;	99US-0164317.
PR	10-NOV-1999;	99US-0164318.
PR	10-NOV-1999;	99US-0164319.
PR	10-NOV-1999;	99US-0164321.
PR	10-NOV-1999;	99US-0164544.
PR	10-NOV-1999;	99US-0164545.
PR	10-NOV-1999;	99US-0164548.
PR	12-NOV-1999;	99US-0164870.
PR	12-NOV-1999;	99US-0164871.
PR	12-NOV-1999;	99US-0164959.
PR	12-NOV-1999;	99US-0164960.
PR	12-NOV-1999;	99US-0164961.
PR	12-NOV-1999;	99US-0164962.
PR	15-NOV-1999;	99US-0164926.
PR	15-NOV-1999;	99US-0164927.
PR	15-NOV-1999;	99US-0164929.
PR	16-NOV-1999;	99US-0165661.
PR	16-NOV-1999;	99US-0165669.
PR	16-NOV-1999;	99US-0165671.
PR	17-NOV-1999;	99US-0165911.
PR	17-NOV-1999;	99US-0165918.
PR	17-NOV-1999;	99US-0165919.
PR	18-NOV-1999;	99US-0166157.
PR	18-NOV-1999;	99US-0166158.
PR	18-NOV-1999;	99US-0166173.
PR	19-NOV-1999;	99US-0166411.
PR	19-NOV-1999;	99US-0166412.
PR	19-NOV-1999;	99US-0166419.
PR	22-NOV-1999;	99US-0166733.
PR	22-NOV-1999;	99US-0166750.
PR	23-NOV-1999;	99US-0167362.
PR	24-NOV-1999;	99US-0167233.
PR	24-NOV-1999;	99US-0167234.
PR	24-NOV-1999;	99US-0167235.
PR	24-NOV-1999;	99US-0167382.
PR	30-NOV-1999;	99US-0167902.
PR	30-NOV-1999;	99US-0167904.

PR 30-NOV-1999; 99US-0167908.
 PR 01-DEC-1999; 99US-0168231.
 PR 01-DEC-1999; 99US-0168232.
 PR 01-DEC-1999; 99US-0168233.
 PR 02-DEC-1999; 99US-0168546.
 PR 02-DEC-1999; 99US-0168548.
 PR 02-DEC-1999; 99US-0168549.
 PR 03-DEC-1999; 99US-0168673.
 PR 03-DEC-1999; 99US-0168674.
 PR 03-DEC-1999; 99US-0168675.
 PR 07-DEC-1999; 99US-0169278.
 PR 07-DEC-1999; 99US-0169298.
 PR 07-DEC-1999; 99US-0169302.
 PR 08-DEC-1999; 99US-0169691.
 PR 08-DEC-1999; 99US-0169692.
 PR 16-DEC-1999; 99US-0171098.
 PR 16-DEC-1999; 99US-0171107.
 PR 16-DEC-1999; 99US-0171114.
 PR 19-JAN-2000; 2000US-0176866.
 PR 19-JAN-2000; 2000US-0176867.
 PR 19-JAN-2000; 2000US-0176910.
 PR 26-JAN-2000; 2000US-0178166.
 PR 27-JAN-2000; 2000US-0177666.
 PR 27-JAN-2000; 2000US-0178544.
 PR 27-JAN-2000; 2000US-0178545.
 PR 27-JAN-2000; 2000US-0178546.
 PR 27-JAN-2000; 2000US-0178547.
 PR 28-JAN-2000; 2000US-0178754.
 PR 28-JAN-2000; 2000US-0178755.
 PR 01-FEB-2000; 2000US-0179388.
 PR 01-FEB-2000; 2000US-0179395.
 PR 03-FEB-2000; 2000US-0180039.
 PR 03-FEB-2000; 2000US-0180139.
 PR 04-FEB-2000; 2000US-0180206.
 PR 04-FEB-2000; 2000US-0180207.
 PR 07-FEB-2000; 2000US-0180695.
 PR 07-FEB-2000; 2000US-0180696.
 PR 09-FEB-2000; 2000US-0181214.
 PR 09-FEB-2000; 2000US-0181228.
 PR 10-FEB-2000; 2000US-0181476.
 PR 10-FEB-2000; 2000US-0181551.
 PR 15-FEB-2000; 2000US-0182477.
 PR 15-FEB-2000; 2000US-0182478.
 PR 15-FEB-2000; 2000US-0182512.
 PR 15-FEB-2000; 2000US-0182516.
 PR 17-FEB-2000; 2000US-0183165.
 PR 17-FEB-2000; 2000US-0183166.

XX
 PA (CERE-) CERES INC.

XX
 PI Alexandrov N, Brover V, Chen X, Subramanian G, Troukhan ME;
 PI Zheng L, Dumas J;

XX
 DR WPI; 2000-507395/46.
 DR N-PSDB; AAC47417.

XX
 PT New sequence determined DNA fragments (SDPs) from different plant
 PT species, e.g. corn, rice or Arabidopsis thaliana, useful as promoters,
 PT protein coding sequences, untranslated regions, or as 3' termination
 PT sequences -

XX
 PS Claim 19; SEQ ID 53745; 344pp + CD-ROM; English.

XX
 CC The present sequence is a putative protein fragment from

CC Arabidopsis thaliana. Its coding sequence was isolated by carrying out
 CC RT-PCR on all of the mRNA obtained from the plant, and creating a cDNA
 CC library which could then be sequenced, allowing the putative protein
 CC sequence(s) to be obtained. This sequence may be useful for protein
 CC identification and for aiding in the elucidation of signal transduction
 CC and metabolic pathways. Its coding sequence has a use in the control of
 CC gene expression as a promoter, coding sequence, 3'UTR or termination
 CC sequence, for controlling the behaviour of a gene within the chromosome,
 CC as a tool for use in genetic mapping, including a use in hybridisation
 CC assays, for recognition or isolation of similar DNA fragments, or for
 CC the identification of a particular organism.

XX

SQ Sequence 606 AA;

SQ 66 A; 33 R; 16 N; 34 D; 0 B; 11 C; 19 Q; 52 E; 0 Z; 40 G; 8 H;

SQ 28 I; 60 L; 39 K; 15 M; 17 F; 40 P; 48 S; 28 T; 1 W; 18 Y; 33 V;

SQ 0 Others;

```
mpglvsvktp sdtpplrav pdtqplsnpp rtpmkktpps tpsrskpspn rstgkkdspt
vssstaavid vddpsldnpd lgpflklar daiasgegpn kaldyairat ksferccaav
appipggsgd gpvldlamsl hvlaaiyysl grfdeavppl eraiqvdpdt rgpdhslaaf
sghmqldgtl smlgqidrsi acyeeglkiq iqtldgtdpr vgetcrylae ayvqamqfnk
aeelckktle ihrahsepas leeaadrrlm aiiceakgdy enalehlvla smamiasgqe
sevasidvsi gniymslcrf deavfsyqka ltvfkaskge thptvasvfv rlaelyhrtg
klresksyce nalriynkpvp pgttveeiag glteisaiye svdepeealk llqksmkllle
dkpgggsaia glearmgvmy ytvgryedar nafesavtkl raageksaff gvvlnqmgla
cvqlfkidea gelfeeargi leqergpcdq dtlgyvsnla atydamgrie daieileqvl
klreeklgta npdfedekkr laellkeagr srnykaksq nlidpnarpp kkessakkwp
slgfkf
```

//

ID AAC50017 standard; DNA; 1102 BP.
XX
AC AAC50017;
XX
DT 18-OCT-2000 (first entry)
XX
DE Arabidopsis thaliana DNA fragment SEQ ID NO: 63285.
XX
KW Hybridisation assay; genetic mapping; gene expression control;
KW protein identification; signal transduction pathway;
KW metabolic pathway; promoter; termination sequence; ss.
XX
OS Arabidopsis thaliana.
XX
PN EP1033405-A2.
XX
PD 06-SEP-2000.
XX
PF 25-FEB-2000; 2000EP-0301439.
XX
PR 25-FEB-1999; 99US-0121825.
PR 05-MAR-1999; 99US-0123180.
PR 09-MAR-1999; 99US-0123548.
PR 23-MAR-1999; 99US-0125788.
PR 25-MAR-1999; 99US-0126264.
PR 29-MAR-1999; 99US-0126785.
PR 01-APR-1999; 99US-0127462.
PR 06-APR-1999; 99US-0128234.
PR 08-APR-1999; 99US-0128714.
PR 16-APR-1999; 99US-0129845.
PR 19-APR-1999; 99US-0130077.
PR 21-APR-1999; 99US-0130449.
PR 23-APR-1999; 99US-0130510.
PR 23-APR-1999; 99US-0130891.
PR 28-APR-1999; 99US-0131449.
PR 30-APR-1999; 99US-0132048.
PR 30-APR-1999; 99US-0132407.
PR 04-MAY-1999; 99US-0132484.
PR 05-MAY-1999; 99US-0132485.
PR 06-MAY-1999; 99US-0132486.
PR 06-MAY-1999; 99US-0132487.
PR 07-MAY-1999; 99US-0132863.
PR 11-MAY-1999; 99US-0134256.
PR 14-MAY-1999; 99US-0134218.
PR 14-MAY-1999; 99US-0134219.
PR 14-MAY-1999; 99US-0134221.
PR 14-MAY-1999; 99US-0134370.
PR 18-MAY-1999; 99US-0134768.
PR 19-MAY-1999; 99US-0134941.
PR 20-MAY-1999; 99US-0135124.
PR 21-MAY-1999; 99US-0135353.
PR 24-MAY-1999; 99US-0135629.
PR 25-MAY-1999; 99US-0136021.
PR 27-MAY-1999; 99US-0136392.
PR 28-MAY-1999; 99US-0136782.
PR 01-JUN-1999; 99US-0137222.
PR 03-JUN-1999; 99US-0137528.
PR 04-JUN-1999; 99US-0137502.
PR 07-JUN-1999; 99US-0137724.
PR 08-JUN-1999; 99US-0138094.
PR 10-JUN-1999; 99US-0138540.
PR 10-JUN-1999; 99US-0138847.
PR 14-JUN-1999; 99US-0139119.
PR 16-JUN-1999; 99US-0139452.

PR	16-JUN-1999;	99US-0139453.
PR	17-JUN-1999;	99US-0139492.
PR	18-JUN-1999;	99US-0139454.
PR	18-JUN-1999;	99US-0139455.
PR	18-JUN-1999;	99US-0139456.
PR	18-JUN-1999;	99US-0139457.
PR	18-JUN-1999;	99US-0139458.
PR	18-JUN-1999;	99US-0139459.
PR	18-JUN-1999;	99US-0139460.
PR	18-JUN-1999;	99US-0139461.
PR	18-JUN-1999;	99US-0139462.
PR	18-JUN-1999;	99US-0139463.
PR	18-JUN-1999;	99US-0139750.
PR	18-JUN-1999;	99US-0139763.
PR	21-JUN-1999;	99US-0139817.
PR	22-JUN-1999;	99US-0139899.
PR	23-JUN-1999;	99US-0140353.
PR	23-JUN-1999;	99US-0140354.
PR	24-JUN-1999;	99US-0140695.
PR	28-JUN-1999;	99US-0140823.
PR	29-JUN-1999;	99US-0140991.
PR	30-JUN-1999;	99US-0141287.
PR	01-JUL-1999;	99US-0141842.
PR	01-JUL-1999;	99US-0142154.
PR	02-JUL-1999;	99US-0142055.
PR	06-JUL-1999;	99US-0142390.
PR	08-JUL-1999;	99US-0142803.
PR	09-JUL-1999;	99US-0142920.
PR	12-JUL-1999;	99US-0142977.
PR	13-JUL-1999;	99US-0143542.
PR	14-JUL-1999;	99US-0143624.
PR	15-JUL-1999;	99US-0144005.
PR	16-JUL-1999;	99US-0144085.
PR	16-JUL-1999;	99US-0144086.
PR	19-JUL-1999;	99US-0144325.
PR	19-JUL-1999;	99US-0144331.
PR	19-JUL-1999;	99US-0144332.
PR	19-JUL-1999;	99US-0144333.
PR	19-JUL-1999;	99US-0144334.
PR	19-JUL-1999;	99US-0144335.
PR	20-JUL-1999;	99US-0144352.
PR	20-JUL-1999;	99US-0144632.
PR	20-JUL-1999;	99US-0144884.
PR	21-JUL-1999;	99US-0144814.
PR	21-JUL-1999;	99US-0145086.
PR	21-JUL-1999;	99US-0145088.
PR	22-JUL-1999;	99US-0145085.
PR	22-JUL-1999;	99US-0145087.
PR	22-JUL-1999;	99US-0145089.
PR	22-JUL-1999;	99US-0145192.
PR	23-JUL-1999;	99US-0145145.
PR	23-JUL-1999;	99US-0145218.
PR	23-JUL-1999;	99US-0145224.
PR	26-JUL-1999;	99US-0145276.
PR	27-JUL-1999;	99US-0145913.
PR	27-JUL-1999;	99US-0145918.
PR	27-JUL-1999;	99US-0145919.
PR	28-JUL-1999;	99US-0145951.
PR	02-AUG-1999;	99US-0146386.
PR	02-AUG-1999;	99US-0146388.
PR	02-AUG-1999;	99US-0146389.
PR	03-AUG-1999;	99US-0147038.
PR	04-AUG-1999;	99US-0147204.
PR	04-AUG-1999;	99US-0147302.

PR	05-AUG-1999;	99US-0147192.
PR	05-AUG-1999;	99US-0147260.
PR	06-AUG-1999;	99US-0147303.
PR	06-AUG-1999;	99US-0147416.
PR	09-AUG-1999;	99US-0147493.
PR	09-AUG-1999;	99US-0147935.
PR	10-AUG-1999;	99US-0148171.
PR	11-AUG-1999;	99US-0148319.
PR	12-AUG-1999;	99US-0148341.
PR	13-AUG-1999;	99US-0148565.
PR	13-AUG-1999;	99US-0148684.
PR	16-AUG-1999;	99US-0149368.
PR	17-AUG-1999;	99US-0149175.
PR	18-AUG-1999;	99US-0149426.
PR	20-AUG-1999;	99US-0149722.
PR	20-AUG-1999;	99US-0149723.
PR	20-AUG-1999;	99US-0149929.
PR	23-AUG-1999;	99US-0149902.
PR	23-AUG-1999;	99US-0149930.
PR	25-AUG-1999;	99US-0150566.
PR	26-AUG-1999;	99US-0150884.
PR	27-AUG-1999;	99US-0151065.
PR	27-AUG-1999;	99US-0151066.
PR	27-AUG-1999;	99US-0151080.
PR	30-AUG-1999;	99US-0151303.
PR	31-AUG-1999;	99US-0151438.
PR	01-SEP-1999;	99US-0151930.
PR	07-SEP-1999;	99US-0152363.
PR	10-SEP-1999;	99US-0153070.
PR	13-SEP-1999;	99US-0153758.
PR	15-SEP-1999;	99US-0154018.
PR	16-SEP-1999;	99US-0154039.
PR	20-SEP-1999;	99US-0154779.
PR	22-SEP-1999;	99US-0155139.
PR	23-SEP-1999;	99US-0155486.
PR	24-SEP-1999;	99US-0155659.
PR	28-SEP-1999;	99US-0156458.
PR	29-SEP-1999;	99US-0156596.
PR	04-OCT-1999;	99US-0157117.
PR	05-OCT-1999;	99US-0157753.
PR	06-OCT-1999;	99US-0157865.
PR	07-OCT-1999;	99US-0158029.
PR	08-OCT-1999;	99US-0158232.
PR	12-OCT-1999;	99US-0158369.
PR	13-OCT-1999;	99US-0159293.
PR	13-OCT-1999;	99US-0159294.
PR	13-OCT-1999;	99US-0159295.
PR	14-OCT-1999;	99US-0159329.
PR	14-OCT-1999;	99US-0159330.
PR	14-OCT-1999;	99US-0159331.
PR	14-OCT-1999;	99US-0159637.
PR	14-OCT-1999;	99US-0159638.
PR	18-OCT-1999;	99US-0159584.
PR	21-OCT-1999;	99US-0160741.
PR	21-OCT-1999;	99US-0160767.
PR	21-OCT-1999;	99US-0160768.
PR	21-OCT-1999;	99US-0160770.
PR	21-OCT-1999;	99US-0160814.
PR	21-OCT-1999;	99US-0160815.
PR	22-OCT-1999;	99US-0160980.
PR	22-OCT-1999;	99US-0160981.
PR	22-OCT-1999;	99US-0160989.
PR	25-OCT-1999;	99US-0161404.
PR	25-OCT-1999;	99US-0161405.

PR	25-OCT-1999;	99US-0161406.
PR	26-OCT-1999;	99US-0161359.
PR	26-OCT-1999;	99US-0161360.
PR	26-OCT-1999;	99US-0161361.
PR	28-OCT-1999;	99US-0161920.
PR	28-OCT-1999;	99US-0161992.
PR	28-OCT-1999;	99US-0161993.
PR	29-OCT-1999;	99US-0162142.
PR	29-OCT-1999;	99US-0162143.
PR	29-OCT-1999;	99US-0162228.
PR	01-NOV-1999;	99US-0162891.
PR	01-NOV-1999;	99US-0162894.
PR	01-NOV-1999;	99US-0162895.
PR	02-NOV-1999;	99US-0163091.
PR	02-NOV-1999;	99US-0163092.
PR	02-NOV-1999;	99US-0163093.
PR	03-NOV-1999;	99US-0163248.
PR	03-NOV-1999;	99US-0163249.
PR	03-NOV-1999;	99US-0163281.
PR	04-NOV-1999;	99US-0163379.
PR	04-NOV-1999;	99US-0163380.
PR	04-NOV-1999;	99US-0163381.
PR	08-NOV-1999;	99US-0164146.
PR	08-NOV-1999;	99US-0164150.
PR	08-NOV-1999;	99US-0164151.
PR	09-NOV-1999;	99US-0164259.
PR	09-NOV-1999;	99US-0164260.
PR	10-NOV-1999;	99US-0164317.
PR	10-NOV-1999;	99US-0164318.
PR	10-NOV-1999;	99US-0164319.
PR	10-NOV-1999;	99US-0164321.
PR	10-NOV-1999;	99US-0164544.
PR	10-NOV-1999;	99US-0164545.
PR	10-NOV-1999;	99US-0164548.
PR	12-NOV-1999;	99US-0164870.
PR	12-NOV-1999;	99US-0164871.
PR	12-NOV-1999;	99US-0164959.
PR	12-NOV-1999;	99US-0164960.
PR	12-NOV-1999;	99US-0164961.
PR	12-NOV-1999;	99US-0164962.
PR	15-NOV-1999;	99US-0164926.
PR	15-NOV-1999;	99US-0164927.
PR	15-NOV-1999;	99US-0164929.
PR	16-NOV-1999;	99US-0165661.
PR	16-NOV-1999;	99US-0165669.
PR	16-NOV-1999;	99US-0165671.
PR	17-NOV-1999;	99US-0165911.
PR	17-NOV-1999;	99US-0165918.
PR	17-NOV-1999;	99US-0165919.
PR	18-NOV-1999;	99US-0166157.
PR	18-NOV-1999;	99US-0166158.
PR	18-NOV-1999;	99US-0166173.
PR	19-NOV-1999;	99US-0166411.
PR	19-NOV-1999;	99US-0166412.
PR	19-NOV-1999;	99US-0166419.
PR	22-NOV-1999;	99US-0166733.
PR	22-NOV-1999;	99US-0166750.
PR	23-NOV-1999;	99US-0167362.
PR	24-NOV-1999;	99US-0167233.
PR	24-NOV-1999;	99US-0167234.
PR	24-NOV-1999;	99US-0167235.
PR	24-NOV-1999;	99US-0167382.
PR	30-NOV-1999;	99US-0167902.
PR	30-NOV-1999;	99US-0167904.

PR 30-NOV-1999; 99US-0167908.
 PR 01-DEC-1999; 99US-0168231.
 PR 01-DEC-1999; 99US-0168232.
 PR 01-DEC-1999; 99US-0168233.
 PR 02-DEC-1999; 99US-0168546.
 PR 02-DEC-1999; 99US-0168548.
 PR 02-DEC-1999; 99US-0168549.
 PR 03-DEC-1999; 99US-0168673.
 PR 03-DEC-1999; 99US-0168674.
 PR 03-DEC-1999; 99US-0168675.
 PR 07-DEC-1999; 99US-0169278.
 PR 07-DEC-1999; 99US-0169298.
 PR 07-DEC-1999; 99US-0169302.
 PR 08-DEC-1999; 99US-0169691.
 PR 08-DEC-1999; 99US-0169692.
 PR 16-DEC-1999; 99US-0171098.
 PR 16-DEC-1999; 99US-0171107.
 PR 16-DEC-1999; 99US-0171114.
 PR 19-JAN-2000; 2000US-0176866.
 PR 19-JAN-2000; 2000US-0176867.
 PR 19-JAN-2000; 2000US-0176910.
 PR 26-JAN-2000; 2000US-0178166.
 PR 27-JAN-2000; 2000US-0177666.
 PR 27-JAN-2000; 2000US-0178544.
 PR 27-JAN-2000; 2000US-0178545.
 PR 27-JAN-2000; 2000US-0178546.
 PR 27-JAN-2000; 2000US-0178547.
 PR 28-JAN-2000; 2000US-0178754.
 PR 28-JAN-2000; 2000US-0178755.
 PR 01-FEB-2000; 2000US-0179388.
 PR 01-FEB-2000; 2000US-0179395.
 PR 03-FEB-2000; 2000US-0180039.
 PR 03-FEB-2000; 2000US-0180139.
 PR 04-FEB-2000; 2000US-0180206.
 PR 04-FEB-2000; 2000US-0180207.
 PR 07-FEB-2000; 2000US-0180695.
 PR 07-FEB-2000; 2000US-0180696.
 PR 09-FEB-2000; 2000US-0181214.
 PR 09-FEB-2000; 2000US-0181228.
 PR 10-FEB-2000; 2000US-0181476.
 PR 10-FEB-2000; 2000US-0181551.
 PR 15-FEB-2000; 2000US-0182477.
 PR 15-FEB-2000; 2000US-0182478.
 PR 15-FEB-2000; 2000US-0182512.
 PR 15-FEB-2000; 2000US-0182516.
 PR 17-FEB-2000; 2000US-0183165.
 PR 17-FEB-2000; 2000US-0183166.

XX
 PA (CERE-) CERES INC.

XX
 PI Alexandrov N, Brover V, Chen X, Subramanian G, Troukhan ME;
 PI Zheng L, Dumas J;

XX
 DR WPI; 2000-507395/46.
 DR P-PSDB; AAG49979, AAG49980, AAG49981.

XX
 PT New sequence determined DNA fragments (SDFs) from different plant
 PT species, e.g. corn, rice or Arabidopsis thaliana, useful as promoters,
 PT protein coding sequences, untranslated regions, or as 3' termination
 PT sequences -

XX
 PS Claim 1; SEQ ID 63285; 344pp + CD-ROM; English.

XX
 CC The present sequence is a cDNA fragment from Arabidopsis thaliana.

CC It was isolated by carrying out RT-PCR on all of the mRNA obtained from
 CC the plant, and creating a cDNA library which could then be sequenced.
 CC This enabled the putative protein sequence(s) to be obtained. This
 CC sequence may be useful in the control of gene expression as a promoter,
 CC coding sequence, 3'UTR or termination sequence, for controlling the
 CC behaviour of a gene within the chromosome, as a tool for use in genetic
 CC mapping, including a use in hybridisation assays, for recognition or
 CC isolation of similar DNA fragments, or for the identification of a
 CC particular organism. The protein it encodes may have a use in protein
 CC identification and in the elucidation of signal transduction and
 CC metabolic pathways.

XX
 SQ

Sequence 1102 BP; 328 A; 184 C; 262 G; 328 T; 0 other;

acagatgttg agttgttctt catcggcgtt ccaaagagta gcctttatgc ttatggctcc	60
caaattaaaa cctcagagac tccatcaaat tgcagagagt ggtgttgaac atttggttaa	120
gaaagctagg acgatgagta ctgaatcctc aatgaaagat gctttctcta cttacgctga	180
ttatctcaat aacttcaatg agaagcgaga aagagtgggtg aaggtaagtc gtgatatacac	240
aatgaacagc aaaaaagtta tctttcaggt tcacaggctc agtaaagaca acaaagagga	300
ggtattggag aaagcaggga aggatttaga agcagtgagg gatcaacatt ttgcccggt	360
aatgaaagag cttcaaggga ctgatttttg gaagctgaga cgtgcttatt cccaggggt	420
gcaggaatat gttgaagctg caacgtttta taagttctgt ttgtctggga cgctatgtac	480
tctcgaatgag attaacacaa cgcttggtacc acttagtgac ccttcttttag agccggttga	540
gatcaatatc ctcgactata ttcttgggct tgcagatttg acgggagagc taatgcggat	600
ggcaattggt cgcataatcag acggtgaaat cgaattcgcg cagaggattt gtcagtttgt	660
tcgacagatt catagggaac taatgctagt tgtgccaaag atggatgaca gttatgacat	720
gaaatccaag atggaagtga tgcttcaaag tgtgatcaaa atagagaacg cttgcttttag	780
cgttcacgtg agaggattag agtatattcc actgcttgga gataatgcac caacatcata	840
cctattggga gctgctgatg tcgaatgatt aaaagttagt ggtcttttcc gtctctcgga	900
cacattttta agttcttgtt aagggttggtg tgtttgagac aagtaggatac gtttttagtat	960
ggacttatct tcagagaatt ttagccactt cttacttctg aggaacttta aatctgtatg	1020
ctgcaagact tttaagaaac aaatgggttag aactagatgt aaaacttttc ttttgtttat	1080
aatagaatct agcaattact tt	1102

//